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The Commonwealth of Massachusetts

EIGHTH ANNUAL REPORT

OF THE

PORT OF BOSTON AUTHORITY

TO THE

GENERAL COURT

UNDER CHAPTER 619 OF THE ACTS OF 1945

JANUARY, 1953



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The Commonwealth of Massachusetts

COMMISSIONERS OF THE PORT.

JOHN R. KEWER, *Chairman*

ALEXANDER MACOMBER

BERNARD R. BALDWIN

WALTER A. McDONOUGH

JOHN J. HALLORAN

The Commonwealth of Massachusetts

PORT OF BOSTON AUTHORITY,
COMMONWEALTH PIER, No. 5,
BOSTON 10, November 18, 1952.

Mr. LAWRENCE R. GROVE, *Clerk of the House of Representatives, State House, Boston, Massachusetts.*

DEAR SIR:—Transmitted herewith is the Annual Report of the Port of Boston Authority for the fiscal year 1951–1952 in accordance with chapter 619 of the Acts of 1945.

Very truly yours,

PORT OF BOSTON AUTHORITY.

JOHN M. BRESNAHAN,
Director.

The Commonwealth of Massachusetts

EIGHTH ANNUAL REPORT OF THE PORT OF BOSTON AUTHORITY TO THE GENERAL COURT.

The eighth annual report of the Port of Boston Authority, established by chapter 619 of the Acts of 1945, which amended chapter 6 of the General Laws and further amended the General Laws by inserting chapter 91A, is herewith presented to the General Court.

The period covered is from July 1, 1951 to June 30, 1952. The report procedure of the Authority was changed in 1947 to cover the fiscal year rather than the calendar year.

The Authority began the year covered under the direction of the following Commissioners: John R. Kewer, chairman, Alexander Macomber, Walter A. McDonough, Bernard R. Baldwin and John J. Halloran, with John M. Bresnahan as Director.

PORT COMMERCE.

The total water-borne commerce of the Port of Boston, as compiled from official sources, is given below. Figures are stated in net tons of 2,000 pounds. The data are provisional.

YEAR.	Total Tons.
1951	18,976,880
1950	18,194,438
1949	15,363,529
1948	18,317,356
1947	18,502,902

The breakdown of 1951 tonnage is:

	Tons.	
Imports	5,300,446	
Exports	436,720	
		<hr/>
Total foreign		5,737,166
Domestic		
Inward	11,484,963 ¹	
Outward	461,743	
		<hr/>
Total domestic		11,946,706
Intraport		1,293,008
		<hr/>
Grand total		18,976,880

Import and Export Traffic (in Short Tons).

YEAR.	Imports.	Exports.	Total.
1951	5,300,446	436,720	5,537,166
1950	5,282,995	247,364	5,530,359
1949	3,361,341	414,857	3,776,198
1948	2,833,989	360,734	3,194,723
1947	3,252,692	538,625	3,791,317

Vessels entering Boston Harbor.

YEAR.	General Cargo.	Bulk Carriers.	Colliers.	Tankers.	Total.
1952 (6 months)	541	76	145	363	1,125
1951	1,237	189	274	620	2,320
1950	1,527	220	254	800	2,801
1949	1,329	206	268	762	2,565
1948	1,207	152	569	727	2,655

Total port tonnage showed an increase for the third successive year and reached the highest figure recorded since the Port Authority commenced its active operations in 1946. Except for the year 1949, when effects of a world-wide recession were manifest, the port total has

¹ Includes bulk carriers.

gained in each period. General cargo imports continued the trend which had developed during 1950, attributable to favorable buying opportunities abroad. Wool and steel were notable examples. Woodpulp, while remaining at a high level, decreased slightly under 1950, partly because of conditions in the paper trade and partly because the domestic product became for the time more attractive. Imports of petroleum continued high. The accompanying tabulation, which omits critical items of a defense nature, gives a cross-section of the port's import traffic.

Representative Commodities imported.

[In tons of 2,000 pounds.]

COMMODITY.	1951.	1950.
Burlaps	20,889	19,982
Cocoa and cocoa beans	28,226	29,235
Coffee	38,210	34,021
Extract, tanning	21,102	11,411
Hides and skins	33,328	45,604
Iron, pig	54,528	44,039
Ore, iron	145,481	39,133
Iron and steel products	95,090	56,871
Stone	7,663	6,615
Tea	4,909	7,995
Woodpulp	118,371	155,524
Wines and liquors	3,940	4,913
Wool	227,887	184,681

In export trade, the marked improvement forecast in last year's report was fully realized. General cargo exports increased by 57 per cent, while grain shipments were almost doubled. Export grain has adjusted itself to the various government controls, while an increase in the number of commercial transactions has been noted. The improvements in Hoosac Elevator, placed in service in August, 1951, together with the corresponding improvement in the elevator at East Boston, has permitted

the handling of larger amounts of grain, as shown in the following table:—

YEAR.	Bushels.
1952 (6 months)	5,800,600
1951	8,006,156
1950	4,567,129
1949	9,430,248
1948	7,651,114

In the domestic trade, intercoastal general cargo tonnage via the Panama Canal averaged 24,430 tons per month, compared with a monthly average of 19,083 tons in 1950. These important steamship services are well maintained and well patronized. The coastwise services, which must operate in the face of intense overland competition, averaged about 14,000 tons per month, or practically the same as the 1950 record. The scheduled services between Boston and the gulf ports were interrupted in the fall of the year, but should be restored during 1952.

Passenger traffic, as reported by the United States Immigration Service, was as follows:

YEAR.	Inbound.	Outbound.	Total.
1951	19,322	3,546 ¹	22,868
1950	22,280	13,548	35,828
1949	46,852	3,578	50,430
1948	21,325	20,328	41,653

¹ Transatlantic only.

So far as the future may be forecast, some decline in foreign trade may be expected in 1952. There appears to be a growing shortage of dollar credits in foreign hands, and this restricts foreign buying in the United States. There are reported instances where foreign buyers, who normally purchase in this country, have diverted orders

to other nations which can supply the same products, merely for reasons of currency. At the same time a general strengthening in the prices of foreign goods which we normally import is causing American industry to restrict its buying of foreign wares. Foreign trade is essentially a business of long-term commitments, and in view of the conditions prevailing this year such commitments are undertaken with caution.

Freight rates and charges continued under the scrutiny of the Traffic Division by the constant review of the rate dockets of the several railroad and motor-carrier rate bureaus. During 1951 approximately 150 proposals were screened each week to detect changes which might affect the Port's position, or to place before the proper bodies requests for changes deemed important to Boston. As a result, the Traffic Division was able to initiate or to participate, in the following rate adjustments favorable to Boston:

Abrasives to Buffalo.	Latex to western points.
Antimony to St. Louis Park, Minn.	Latex to Akron, Ohio.
Caranauba Wax to Racine, Wis.	Lead to Glens Falls, N. Y.
Chrome and manganese ore to Brilliant, Ohio.	Manganese ore to Wisconsin points.
Coffee to Montreal.	Tea to central territory.
Columbite ore to Niagara Falls and Welland, Ont.	Zirconium ore to Brighton, Mich.
Fluorspar to Niagara Falls, Ont.	Asbestos from Danville, Que.
Hemp and sisal to Chicago and Milwaukee.	Blades, scraper, from central territory.
Ilmenite ore to Niagara Falls and Chippewa, Ont.	Caustic soda from Charleston, W. Va.
Iron, pig, to Chicago.	Engines, internal combustion, from Oil City, Pa.
Iron, pig, to Erie and Uniontown, Pa.	Milk, canned, from western terri- tory.
Iron, scrap, to Harriet, N. Y.	Phosphate of calcium from Chicago.

Few actual controversies developed in the past year. The most important was a proposal, advanced by interests at other ports, to eliminate the free time period of

fifteen days allowed at Boston for import shipments of woodpulp on piers. Woodpulp is so marketed that extended free time is essential and the loss of this privilege at Boston would threaten the continuance of traffic. The Port Authority in opposing the change had the support of the Boston railroads, and for the present the proposal has been withdrawn.

The desire of eastern railroads to impose a charge for the service of loading or unloading freight cars on piers has been explained in previous reports. Canadian railroads, as well as those serving the Gulf, have now indicated that they might favor similar charges, and the measure, which fortunately lay dormant in 1951, may be revived in the next twelve months. The Authority which was largely responsible for blocking the plan when it was first advanced, will continue to watch developments. A charge of this nature would be most objectionable, both in principle and in practice.

A charge of similar character, to apply on certain goods handled over piers, was proposed during the past winter by motor common carriers serving Boston. The Authority at once outlined its objections, but there being no public opposition at the time, it was not deemed proper to take more definite action. When the implications of this charge became more generally known, a series of semi-public discussions was held, with the Authority present as observer. The motor carriers took a broad view of the matter and agreed to defer action for several months, but finally voted in June, 1952, to proceed with the establishment of the charges. On petition of certain Boston commercial interests, the Interstate Commerce Commission suspended the charges and will hold formal hearings in the case which has been designated Investigation and Suspension Docket No. M-4329.

In the proceeding known as *Docket 28300, Class Rate Investigation 1939* the Interstate Commerce Commission prescribed a scale of class rates to apply for all-rail traffic in the United States east of the Rocky Mountains, but

left for separate consideration the matter of joint through rates applying over railroad-steamship routes on the Atlantic Coast and into the Gulf. These ocean-rail rates should be lower than the all-rail rates between corresponding points. The main issue was, how much lower? The Authority joined with the coastwise steamship lines and with other port interests in holding that the differences under the new rates should be the same as the differences under the old rates. The Commission substantially adopted this view, and in its decision quoted extensively from the statement which was filed by the Authority in support of its position. The decision should help materially in further developing the coastwise services out of Boston.

An application before the Interstate Commerce was filed early in the year by the West Coast Trans-Oceanic Steamship Line, under Docket W-1019 for authority to operate intercoastal steamship service via the Panama Canal between the Pacific States and North Atlantic ports, including Boston. Believing that this new service was justified, the Authority presented a witness at the hearing before the Commission and filed also an exhibit indicating the status of Boston in the Intercoastal trade. At the date of this report, the Commission's action on the application had not been announced.

The Export Grain Rate Case, as noted in the previous report, had been decided in favor of Boston by the federal district court for the district of Massachusetts. Railroads and port interests of Baltimore and Philadelphia appealed the decision to the United States Supreme Court which upheld the lower court in every particular. The reduced rates from Buffalo to Boston and New York, on the same level as the rates to Baltimore and Philadelphia, accordingly were made effective on January 29, 1952. Meantime Baltimore and Philadelphia interests continued their efforts to restore their former artificial and unwarranted advantage, and after a number of maneuvers succeeded in obtaining permission from the Interstate Com-

merce Commission to reopen the proceeding for the purpose of presenting "new evidence." This reopened proceeding is now set for hearing before the Commission on November 12, 1952.

The new rates have nevertheless remained in force so that Boston is on a parity with its competitors.

Contacts with the public continue in the form of furnishing advice and assistance to the shipping public in technical transportation matters. The Division maintains a telephone information service which answers inquiries as to vessel movements, pier locations, schedules and services. These inquiries are not confined to Boston problems. In the past twelve months, 27 per cent of the inquiries related to ship movements and local conditions of other ports. Written inquiries are too numerous to list. The Authority has now been long enough in existence to be recognized as a leader in its field. Typical are a request from the Port Authority of Osaka, Japan, as to the duties of a harbor master, one from the Danish government for the number of vessels entering the port in a calendar year, and a third from the University, Nottingham, England, for tonnage statistics.

The Authority is represented on the Executive Committee of the North Atlantic Ports Conference, on the Export and Import Committee of the New England Traffic League, and the Port Facilities Committee of the New England Shippers Advisory Board. Membership is held in the National Industrial Traffic League, the American Association of Port Authorities, the North Atlantic Ports Association, the Maritime Association of the Greater Boston Chamber of Commerce, the Greater Boston Chamber of Commerce, the Foreign Commerce Club, the New England Export Club, the Propeller Club of the United States, etc. Membership in these professional and technical bodies is of vital importance in the conduct of port affairs.

NEW STEAMSHIP LINES.

Since 1948 the following new lines have made Boston a port of call:

American & Australian SS Line.	Booth Line.
Montreal, Australia, New Zealand.	Flota Mercante Grancolombiana.
Cunard Line, Ltd.	Grace Line.
Blue Peter Steamships.	Prince Line.
American-Manchurian Line.	West Coast Line.
Berber Fern-Ville Line.	American-African Line.
De La Rama Lines.	American-West African Line.
Isthmian SS Line.	Elder Dempster Lines.
Isthmian-Matson Line.	Farrell Lines.
Mitsui Line.	Robin Lines.
Osaka Shosen Kaisha.	South Africa Marine Corp.
Nippon Yusen Kaisha.	Union Castle Mail & SS Company.
States Marine Lines.	Greek Line.
Clan Line.	Red Star Line.
Nedlloyd Line.	Farm Line.
Concordia Line.	French Line.
Hellenic Lines.	Hamburg-American Line.
Home Lines.	Isbrandtsen Co., Inc.
Prudential Line.	Meyer Line.
Stevenson Line.	North German Lloyd Line.
Torm Line.	U. S. Navigation Company.
Finland SS Company.	Pope & Talbot.
Norwegian American Line.	Weyerhauser Line.
Argentina State Line.	

LABOR RELATIONS.

*Daily Employment Statistics, Longshoremen Handling General Cargo
in the Port of Boston, July 1, 1951 to June 30, 1952.*

	Average Employ- ment Daily.	Maximum Employ- ment.	Number of Days over 1,000.	Maximum Gang ¹ Shortage.	Number of Days ¹ Shortage.
1951.					
July	534	1,206	1	1	4
August	694	1,249	5	3	4
September	527	1,066	1	1	2
October ²	384	1,038	2	—	—
November ²	404	1,324	3	3	3
December	524	1,069	1	3	2
1952.					
January	483	926	—	1	1
February	602	1,268	5	2	3
March	505	1,107	1	1	1
April	497	987	—	2	1
May	497	1,271	1	1	1
June	561	1,142	2	8	4

1950-51, annual average per day, 834.

1951-52, annual average per day, 517.

¹ Gangs number from 15 to 21 men.

² Stoppage of work in October and November, 1951, in entire Atlantic Coast District.

The above statistics do not include sugar refinery workers, lumber handlers, warehouse helpers, coal, oil, sulphur and iron ore unloaders, weighers and samplers, and maintenance personnel employed in the Port, as well as clerical help.

Employment.

The number of workers affected in the Port of Boston on a port comparative basis has been average. The situation of supply and demand has caused a slump affecting all ports throughout the entire world; consequently, a lesser number of men have been employed than in the past year.

Workers.

The supply of workmen in the Port of Boston is above the average. There has been a sufficient number of

workers available with very few exceptions. The men employed are experienced workers. To obtain a fair profit in the contracting, ship unloading and loading, the following are of paramount importance: assemblage of cargo; proper stowage; proper loading to obtain necessary stability; and last, but most important, the quick turnabout of vessels entering and leaving the Port of Boston, accomplished in a safe manner, is the barometer and basis for a profit or loss for the operator, all accomplished under hazardous conditions.

Co-operation.

Industry and labor in a manner which is commendable have carried out a progressive program which augurs well for the Port of Boston. The labor management agent has been called upon on seven occasions when a stoppage of work was imminent, one of which was of a jurisdictional nature. This action became a necessity to prevent the curtailment of the normal flow of water-borne cargo through the Port. With the exception of a wage reopening clause, agreements are in full force until September, 1953.

OPERATIONS DIVISION.

During the fiscal year 185 vessels were accommodated and serviced at Commonwealth Piers No. 1 and No. 5, under the supervision of the Operations Division. The total accumulated tonnage during this period was 276,586 tons.

Total Tonnage and Passengers.

TERMINAL.	Number of Vessels.	TONNAGE.		PASSENGERS.	
		Inward.	Outward.	Inward.	Outward.
Commonwealth Pier No. 1 . . .	12	9,399	1,033	28	-
Commonwealth Pier No. 5 . . .	173	179,604	86,550	2,409	1,918
		189,003	87,583	2,437	1,918
Total	185	276,586		4,355	

CASTLE ISLAND TERMINAL.

This terminal continued under operational jurisdiction of the Authority under a federal interim permit, with Terminal Operators, Inc., acting as operating agents under an agreement with the Authority.

During the year, 133 ships were berthed at the Terminal.

General cargo transshipped was 106,831 tons, including newsprint, wool, coffee and sugar. In addition, this terminal is one of the largest terminals on the Atlantic Coast, and 28,790,934 board feet were handled during the year.

HOOSAC PIER No. 1.

Hoosac Pier No. 1 continued under lease to the Mystic Terminal Company, a subsidiary of the Boston & Maine Railroad, which acts as operating agents under an agreement with the Authority.

During the year, 110 ships were berthed at the terminal. General cargo transshipped was 122,814 tons. The grain handled totaled 95,821 tons. This exceeded by 88,734 tons the grain handled the previous fiscal year.

MAINTENANCE DIVISION.

Regular maintenance by the Authority's staff was continued throughout the year. The principal works which were let out to private contractors were as follows: —

Hoosac Pier No. 1.

Resurfacing paving in transit shed.

Commonwealth Pier No. 1.

Fire alarm system.

Commonwealth Pier No. 5.

Modernization of one freight elevator.

Installation of six new cargo loading platforms.

Repair of cargo loading doorways.

Repair of portal ceilings and roof.

Repair of cargo hoist.

Repair of steel sashes and steel sash rails.
Repair of power plant.
Castle Island Facility.
Repair of wood columns in transit shed.
Replacement of underground water main.

CUSTOMS COLLECTIONS AT PORT.

Boston's customs collections for the year 1951 in the amount of \$70,275,140.45 showed an increase of \$7,769,-364.41 over 1950. Part of this increase is due to higher prices, but most items are dutiable at specific rates, that is, so much per pound or bushel, so the gain can actually be attributed to an increase flow of merchandise.

NATIONAL DEFENSE.

The Authority has co-operated with the Department of the Navy and the Massachusetts Institute of Technology in conducting experiments of a defense nature in the tidewaters of Boston Harbor.

The personnel of this Authority has been organized in a program of protection against the effects of enemy attack in accordance with Administrative Order No. 9, and under the direction of the Civil Defense Agency of the Commonwealth.

HARBOR RADAR TEST.

The Raytheon Manufacturing Company of Waltham, Massachusetts, in conjunction with the Authority, unveiled a major contribution to the safe navigation of ships under limited and restricted weather conditions when the most advanced harbor radar system devised was tested at Deer Island during the months of July and August, 1952.

This revolutionary installation, using the world's largest commercial radar antenna, was developed and constructed for the Port of Le Havre, France, at a cost of \$250,000. Valuable information and data were collected during the actual tests in Boston Harbor before the equipment was shipped to France.

The Authority was pleased to have had the opportunity to co-operate with the Raytheon Manufacturing Company in furthering the advancement of the use of harbor radar.

AMERICAN FEDERATION OF LABOR UNION INDUSTRIES SHOW.

The Authority participated in the A. F. L. Union Industries Show which was held at Mechanics Building, May 17, through May 24, 1952, at the invitation of Local No. 56, Carpenters and Pile Driver's Union. Officials and members of this union who have been employed in the construction of Hoosac Pier No. 1 and Mystic Pier No. 1 presented the Port of Boston's story to the thousands of visitors who attended this show.

PORT INVESTIGATION COMMITTEES.

During the year covered by this report numerous survey parties of ad hoc authorities from various American and European cities have visited Boston to observe the workings of this Authority. Among this group were representatives from the State of California Senate Fact-Finding Committee on establishing a Port Authority for San Francisco Bay; the Port of New York Authority; the Port of Houston Commission; the Port of London, England, Authority; the Port of Dublin, Ireland, Authority; the Port of Norfolk Authority; the Port of Seattle, and the Port of Dieppe, France.

OCEAN TRAVEL TAX.

The fiscal year saw the repeal of the ocean travel tax by the Congress of the United States by which passengers who boarded a vessel at New York, whose destination is a foreign port, were charged an additional tax over and above the 15 per cent regular passenger tax if the vessel stopped at the port of Boston or any other United States port to embark additional passengers. This discriminatory tax had militated against the establishment of regular passenger services from Boston and had severely

handicapped the Authority in its efforts to induce passenger lines to make calls here.

PROMOTION AND SOLICITATION.

The staff working out of the home office in the immediate tributary area made 949 calls in 79 communities during the fiscal year, while representatives at the branch offices presented the advantages of the Port to more than 1,000 shippers and businessmen.

During the fiscal year the branch offices made 793 calls in New York City and 210 calls in Chicago.

All Department of Defense contracts were scrutinized and respective military contracting agencies were solicited for routings of foreign and domestic freight through the Port of Boston.

ENGINEERING DIVISION.

Mystic Pier No. 1.

The second step in the master plan for the revitalization of the Port terminal facilities, construction of the new Mystic Pier No. 1, Charlestown, on the site of the old Mystic Piers 46 and 47, was substantially completed during the fiscal year ending June 30, 1952.

Merritt-Chapman and Scott Corporation was the general contractor for the entire project except for dredging, fire alarm system, and security fence. This pier has been leased to the Boston & Maine Railroad for a period of twenty years, and will be operated by a subsidiary, the Mystic Terminal Company. The total cost of this pier amounted to \$5,439,965.64.

Mystic Pier No. 1 is a rectangular finger pier approximately 900 feet long by 468 feet wide with a 25-foot working apron on the north and south berths, and a 20-foot working apron on the east berth. The transit shed is a one-story building, constructed entirely of fire-resistant materials, 580 feet long and 418 feet wide, having a total floor area of about 246,000 square feet. The west end of the transit shed contains the offices which are on two

floors, the warm rooms, gear lockers, and other appurtenant facilities. The pier has berthing capacity of three ships at one time with transit shed accommodations and one open berth on the upstream end of the wharf on the Little Mystic for tieup or bulk cargo operations. Direct interchange of rail cargo is provided by tracks on the north and south working aprons and three tracks in the center of the shed. Truck cargo can be handled at the truck loading docks on the west end of the transit shed, and at two long canopied loading platforms, one on each side of and along the center railroad tracks on the outside of and connecting to the transit shed. The battery-charging building is a two-story brick and concrete building, 125 feet long and 31 feet wide, for the repairing of cargo-handling equipment, and the charging of battery-operated equipment. The second floor contains offices and a large hall for shaping longshoremen for work on the pier.

For security the pier is enclosed on the land side with a chain link type of fence. An 80-foot flood-lighting tower has been erected to light the entire open area on the land side of the pier. Fire protection is provided by a pre-action type of sprinkler system, draft curtains, fire-alarm boxes at strategic locations throughout the pier connected with the Boston fire department alarm system, and hose connections around the perimeter of the terminal.

East Boston Pier No. 1.

As stated in the previous annual report, the contract plans and specifications for the construction of the proposed Pier No. 1 were completed by our consulting engineers, Fay, Spofford, & Thorndike of Boston, and bids taken on September 21, 1950. Since the bids received exceeded the funds available, and because the waterborne commerce of the Port required the continued use of Commonwealth Pier No. 1 and Grand Junction Pier No. 2, the bids were rejected.

A bill was submitted to the Legislature providing for

an additional \$2,000,000 to complete the project and placing the bonds on a thirty-five-year serial plan instead of the present. This bill was passed by the Legislature as chapter 505, Acts of 1952, approved on June 30, 1952. Proposals for the construction of the new pier will be requested from the contractors as soon as authorization to commence construction with an allocation of critical materials is obtained from the National Production Authority.

The proposed pier is 600 feet long by 390 feet wide, with 25-foot working aprons on the side berths and a 20-foot apron on the outboard berth; a transit shed with 20 feet overhead clearance, covering an area of approximately 196,000 square feet, four sets of tracks, one flush with the deck on each of the side aprons, and two in a depressed well running down the center of the transit shed; the side berths to have a piping arrangement for the transfer of bulk liquid cargo from ships to tank cars; ramps for vehicle access into the shed; offices; warm rooms and truck docks will be provided at the inshore end of the building. The working area of the transit shed will have a clear deck free of columns from the outside wall to the center track well, making it the ultimate in modern and efficient operating layout.

It is expected that the Massachusetts Department of Public Works will commence construction of the proposed highway access road from Lewis Street across the docks of Pier No. 1 to the new pier as soon as the work gets under way on the water-front terminal.

On January 1, 1952, the New York Central Railroad took possession of rehabilitated grain-handling facilities for operation in accordance with their lease from the Authority. The facilities not only increase the efficiency of handling grain from storage to ship but more than triple the shipping capacity. With the new hatch trimming machines, the ship loading time has been cut more than 60 per cent thereby placing the competitive position of the port on a parity with other North Atlantic grain terminals.

The improvements consisted of greater capacity conveyors from grain elevator storage bins to the ship loading spouts, conveyor unloaders for simultaneous loading of four ship hatches, more comprehensive and flexible communication and control system, remote control power-driven winches for operating ship loading spouts, rehabilitation of structural steel frame of the gallery, new aluminum exterior siding on the gallery and power outlets for the new trimming machines.

Castle Island Terminal.

No progress during this fiscal year has been made on the commencement of the proposed alterations and improvements previously discussed in prior annual reports as authorized originally by chapter 625 of the Acts of 1948 and superseded in 1951 by chapter 771. Commencement of the construction is scheduled to start as soon as an exchange of deeds between the United States of America and the Commonwealth has been accomplished in accordance with chapter 705, Acts of 1951, and Public Law 222—82nd Congress, chapter 590. This legislative act authorizes a transfer of certain lands in the vicinity of the headquarters of the First Naval District, South Boston, deeded by the U. S. Navy Department to the federal government in Castle Island Terminal.

NORTHERN AVENUE DEVELOPMENT.

No further progress has been made on this project during the period of this report. The contract plans and specifications for the "Wharf, fill, drainage and trackage" were prepared on an advance for plan preparation from the General Services Administration of the federal government. The plans were completed in January, 1952, at a cost of \$118,900.

The plan preparation for the remainder of the project will be contingent on a further advance from the federal government or legislative authorization and appropriations. The project is tentatively scheduled in the master

plan for commencement after completion of the East Boston Pier No. 1 and the development of Castle Island Terminal.

Hoosac Pier No. 1.

The general cargo terminal and the grain-handling facilities have been in constant operation since their completion August 7, 1950. Additional improvements have since been made to the grain facilities at the request of the Mystic Terminal Company, operators of the properties for the Lessee, the Boston & Maine Railroad.

A vacuum cleaning system was necessary in order to keep the grain elevator clean and free from dust to eliminate explosive conditions and to insure better working conditions. The cleaning system has collection outlets on all floors of the elevator to which portable suction cleaning devices may be connected. The dust and dirt are collected by the system and delivered to a container on the outside of the building directly above one of the tracks where it is loaded into freight cars for disposal.

In the original program for modernizing the grain handling facilities, remote control power-driven winches were specified for operating the loading spouts. When the bids were taken it was found that the cost exceeded the funds available. It was therefore necessary to eliminate these with the consent of the railroad. Since then the Boston & Maine Railroad found that power-driven winches were necessary for efficient and safe operation of the ship loading spouts.

As the William T. Donovan Company of Boston were performing similar work at the grain facilities at the East Boston Piers, it was decided the most economical and expeditious procedure in carrying out this work was to have the work performed on an extra work order on Donovan's contract. The extra work order was issued to the Donovan Company August 1, 1951, at a lump sum price of \$42,933, and was satisfactorily completed April 15, 1952.

Each year a joint inspection of the Hoosac facilities is made by the engineers from the Boston & Maine Rail-

road, the Mystic Terminal Company and the Port of Boston Authority. The inspection made this year indicated the Boston & Maine is maintaining the property satisfactorily.

Oil Pollution.

During the past fiscal year the program for the elimination of oil pollution in the tidewaters of Boston Harbor has been continued with good results. Co-operation has been received from the harbor masters of the towns bordering the harbor, the fire departments, State Fire Marshal, the U. S. Coast Guard, and the various industrial plants located along the water front. Periodic inspections were made of the Malden River, Mystic River, Chelsea River, Boston Inner Harbor, Fort Point Channel, Reserved Channel, Dorchester Bay, Neponset River, Weymouth Fore River, Weymouth Back River, Weir River and Hingham Bay.

All causes of pollution have been investigated and corrective action taken for their elimination by creators of the condition.

Fire Prevention Inspection.

The Engineering Division during the fiscal year also made monthly inspections of all property under the jurisdiction of the Authority. The properties inspected included Parker's Basin; E Street Stores; Commonwealth Piers No. 1 and No. 5; Boston & Albany Piers, East Boston; Hoosac and Mystic Piers. The Castle Island Terminal was inspected once a week as to fire hazards, policing of the grounds, and checking of first aid and fire equipment.

Surveys and Studies.

A survey and soundings were made in the Malden River in the vicinity of the Medford Street bridge in Malden and Medford to determine the amount of shoaling since the last dredging of this area in 1948. Complaints have been received from users of the waterway that the placing

of water pipes in the immediate vicinity of the Medford Street bridge has made navigation hazardous.

Wrecks and Sunken Hulls.

The Authority in keeping with its policy to remove or cause to be removed sunken hulls or wrecks in the tide-waters removed a sunken barge adjacent to the Castle Island Terminal wharf. Two sunken scows were removed from the Town River in Quincy, with the city of Quincy contributing 50 per cent of the cost.

In addition, many small boats, barges and other vessels grounded or sunken in violation of chapter 91 of the General Laws have been removed by their owners. Through the courtesy of the city of Boston, timber wreck and pile disposal grounds are available at Rainsford Island under the supervision of the Authority.

Shore Protection.

During the fiscal year the Authority completed 440 lineal feet of shore protection in the Crow Point section of Hingham at a cost of \$8,511.95. One half of the total cost of this project was borne by the town of Hingham.

The Authority also completed two shore protection projects in the town of Weymouth, — 438 lineal feet at a cost of \$10,703.90 in the Fort Point section, and 370 lineal feet in the Brewster Road section at a cost of \$10,410.80. The town of Weymouth contributed 50 per cent of the total cost of this shore protection.

Dredging Operations.

In compliance with chapter 825 of the Acts of 1950 a dredging contract was awarded for the removal of shoals in Berths 14 and 15 of the Castle Island Terminal Wharf.

The Reserve Channel in the South Boston district of the city of Boston is being dredged under a contract in compliance with chapter 534 of the Acts of 1951. This operation is being carried out in conjunction with the U. S. Army Engineers and the U. S. Maritime Board.

Construction dredging was performed at the new Mystic Pier No. 1 in the Charlestown district. The east or end berth was dredged to 40 feet below mean low water and the two side berths to 35 feet below mean low water.

LICENSES, PERMITS AND REAL ESTATE.

During the period July 1, 1951 to June 30, 1952, 33 licenses, 18 permits, 3 leases and 1 sale of land were prepared and processed.

The estimated cost of improvements to Boston Harbor authorized by licenses and permits during the past year is \$5,130,000.

CONCLUSION.

Considerable progress has been made during the fiscal year by the Authority in fulfilling its mission to sell the Port of Boston to shippers and receivers of water-borne freight, to build new modern piers, to restore and rehabilitate existing structures to facilitate the handling of cargo, and to protect the port against discriminatory freight rates.

Mystic Pier No. 1, Charlestown, the second commercial general cargo facility to be constructed under the Authority's master plan, has just recently been completed and is now in operation.

Foreign trade movement of commercial shipments at the Port of Boston during 1951 was valued at \$918,600,000, a gain of 43 per cent.

The Authority wishes to express its appreciation for the co-operation of His Excellency, Governor Paul A. Dever, and the members of the General Court and of its committees of Ways and Means and Harbors and Public Lands; of the Raytheon Manufacturing Company for holding the preview of the world's largest commercial radar antenna in Boston Harbor; of the civic organization and clubs interested in maritime affairs; of the newspapers, radio and television stations of New England

which have given generously of space and time in support of its activities; and of the steamship companies, banks, water-front labor organizations, transportation companies and shippers' group, which have been of great assistance.

Respectfully submitted,

JOHN R. KEWER,

Chairman.

WALTER A. McDONOUGH.

ALEXANDER MACOMBER.

BERNARD R. BALDWIN.

JOHN J. HALLORAN.

JOHN M. BRESNAHAN, *Director.*

LICENSES AND PERMITS.

LICENSES GRANTED JULY 1, 1951 — JUNE 30, 1952.

- No. 182. *White Fuel Corporation*, to fill solid and rip-rap the slope and build dolphins in the Reserved Channel at their property in the city of Boston.
- “ 183. *New England Telephone and Telegraph Company*, to lay, operate and maintain three armoured submarine telephone cables in and over the tidewaters of Little Mystic Channel.
- “ 184. *Heggie Corporation*, to dismantle, break up, store and tie up vessels in the tidewaters of Dorchester Bay in the city of Boston.
- “ 185. *Boston Housing Authority*, to place and maintain fill off Mount Vernon Street in the Dorchester district of Boston, in and over the tidewaters of Old Harbor Bay, in the city of Boston.
- “ 186. *The Farm and Trades School*, to construct a 6-inch water main from Squantum to Thompson Island in the tidewaters of Boston Harbor in the cities of Quincy and Boston.
- “ 187. *The Eastern Gas and Fuel Associates*, to construct a reinforced concrete drain, 42 inches diameter, on pile bents in and over the tidewaters of Mystic River in the city of Everett.
- “ 188. *Metropolitan Transit Authority*, to dump ice and snow into the tidewaters of Boston Harbor during the winter of 1951-1952.
- “ 189. *City of Boston*, to dump snow and ice into the tidewaters of Boston Harbor during the winter of 1951-1952.
- “ 190. *Metropolitan District Commission*, to construct a 10 foot diameter sewage tunnel under the tidewaters of Chelsea Creek in the cities of Boston and Chelsea.
- “ 191. *John Ucello*, to construct and maintain six mooring dolphins and a timber pier in and over the tidewaters of Weymouth Back River in the town of Weymouth.
- “ 192. *Boston Edison Company*, to repair and maintain existing bulkhead on the northerly corner of its property in and over the tidewaters of the Reserved Channel in the city of Boston.

- No. 193. *City of Boston*, to place rubbish fill in and over the tidewaters of Dorchester Bay in the city of Boston.
- “ 194. *United States Navy Department, Boston Naval Shipyard*, to construct a marginal wharf in and over the tidewaters of Boston Harbor in the city of Boston.
- “ 195. *Chelsea Housing Authority*, to place and maintain solid fill in and over the tidewaters of Mill Creek in the city of Chelsea.
- “ 196. *Samuel Cabot, Inc.*, to make bulkhead alterations, embankment and shore protection in and over the tidewaters of Chelsea River in the city of Chelsea.
- “ 197. *Boston Edison Company*, to construct and maintain screen well, steel sheeting, riprap and dredge in the tidewaters of Weymouth Fore River in the town of Weymouth.
- “ 198. *Margaret Monahan, Edith Foster, Nathan W. Robinson, Ella A. Robinson et al.*, to maintain fill already placed and to fill in and over the tidewaters of Patten's Cove, Dorchester Bay in the city of Boston.
- “ 199. Combined with No. 198.
- “ 200. Combined with No. 198.
- “ 201. *Seward W. Taber* (denied).
- “ 202. *Union Oil Company of Boston*, to construct a timber catwalk addition to existing pier in and over the tidewaters of Chelsea River in the city of Revere.
- “ 203. *City of Boston*, to lay, operate and maintain two armoured submarine fire alarm signal cables in and over the tidewaters of Charles River in the city of Boston.
- “ 204. *New England Telephone and Telegraph Company*, to lay, operate and maintain eighteen armoured submarine telephone cables in and over the tidewaters of Charles River in the city of Boston.
- “ 205. *New England Telephone and Telegraph Company*, to lay, operate and maintain one armoured submarine telephone cable in and over the tidewaters of Weymouth Fore River in the city of Quincy and town of Weymouth.
- “ 206. *Metropolitan District Commission*, to construct a pipeline extension in and under the tidewaters of Hingham Bay in the city of Quincy.
- “ 207. *City of Boston*, to install and maintain a 1-inch submarine pipe line in and across the tidewaters of Fort Point Channel in the city of Boston.
- “ 208. *The Algonquin Gas Transmission Company*, to install a 24-inch natural gas transmission line under and across the tidewaters of Mystic River in the city of Medford.
- “ 209. *The Algonquin Gas Transmission Company*, to install a 24-inch natural gas transmission line under the tidewaters of Malden River in the cities of Everett and Medford.

- No. 210. *Boston Edison Company*, to construct and maintain a screen well, steel sheeting, riprap and do dredging in the tidewaters of Weymouth Fore River in the town of Weymouth.
- “ 211. *Healey Seaver Company*, to maintain fill as now placed in and over the tidewaters of Dorchester Bay in the city of Boston.
- “ 212. *Braintree Electric Light Department*, to construct a new pump house in and over the tidewaters of Weymouth Fore River in the town of Braintree.
- “ 213. *Holt and Bugbee Company*, to place and maintain fill in and over the tidewaters of the Little Mystic Channel in the city of Boston.
- “ 214. *Metropolitan Transit Authority*, to extend its present diverting bulkhead at its South Boston Power Station in and over the tidewaters of Boston Harbor in the city of Boston.

PERMITS ISSUED JULY 1, 1951 TO JUNE 30, 1952.

- A-159. *Boston Edison Company*, to install and maintain four electric poles and overhead conductors on the property of the Commonwealth of Massachusetts along the Viaduct, South Boston.
- A-160. *C. J. Maney Company, Inc.*, to use and occupy 9,930 square feet of land on Summer Street, South Boston, for the period July 15, 1951 to December 15, 1951.
Charge: \$25.
- A-161. *Lawrence A. and Arthur B. Litchfield* (doing business as Litchfield's Auto Service), to use and occupy 3,400 square feet of land on D Street, South Boston.
Charge: \$16 per month.
- A-162. *Thomas T. Parker, Inc.*, to use and occupy 59,641 square feet of land on Summer Street, South Boston, including the so-called Grasselli wharf.
Charge: \$250 per month.
- A-163. *Air Force Cambridge Research Center Parking Lot Fund*, to use and occupy 7,800 square feet of land on Summer Street between C and D streets, South Boston.
Charge: \$58.50 per month.
Amendment No. 1: Additional 3,900 square feet of land adjacent to the above.
Charge: \$29.25 per month.
Amendment No. 2: Additional 3,900 square feet of land adjacent to the above.
Charge: \$29.25 per month.

- A-164. *Boston & Maine Railroad Company*, to dump snow into the tidewaters of Boston Harbor from the Somerville, Charlestown area.
Charge: \$50.
- A-165. *New York, New Haven & Hartford Railroad*, to dump snow into the tidewaters of Boston Harbor from Pier 1, South Boston.
Charge: \$75.
- A-166. *Bay State Dredging & Contracting Company*, to dredge an area in the vicinity of Spectacle Island in the tidewaters of Boston Harbor.
- A-167. *City of Chelsea*, to dump snow into Boston Harbor and Chelsea River.
Charge: \$300.
- A-168. *New York Central System*, to dump snow from driveways and platforms at its Piers 2, 3, 4 and 5, East Boston, into Boston Harbor.
- A-169. *Bay State Dredging & Contracting Company*, to dredge an area in the tidewaters of Neponset River in the city of Quincy.
- A-170. *Boston Edison Company*, to install and maintain one pole and overhead wires in and over the Viaduct ramp to the building at 550 D Street, South Boston.
- A-171. *American Sugar Refining Company*, to dredge its coal berth and main ship berth in Fort Point Channel, South Boston.
- A-172. *Boston Edison Company*, to install and maintain one pole, guy wire and anchor on the property of the Commonwealth of Massachusetts in the vicinity of C Street and the Viaduct, South Boston.
- A-173. *Mystic Steamship Division of Eastern Gas & Fuel Associates*, to dredge slip at its ship repair facility in East Boston.
- A-174. *Eastern Gas & Fuel Associates* (Everett Plant), to dredge in front of its Blast Furnace Salt Water Pump House intake in the Mystic River in the city of Everett.
- A-175. *W. J. Dunn Company, Inc.*, to use and occupy metal Quonset Hut on area of land containing 2,400 square feet on C Street, South Boston.
Charge: \$75 per month.
- A-176. *W. J. Dunn Company, Inc.*, to use and occupy 3,540 square feet of land under the Viaduct, South Boston.
Charge: \$70 per month.

Leases.

1. The Intercity Transportation Company was granted a lease for five years ending May 31, 1957, and for a further term of five

years ending May 31, 1962. This lease grants them the use and occupancy of 8,000 square feet of land on C Street, South Boston.

Rent: \$480 annually.

2. T. F. Kearney was granted a lease for five years ending February 28, 1957, to use and occupy 7,000 square feet of land between Bullock and D streets, South Boston.

Rent: \$630 annually.

3. Fish and Wildlife Service renewed lease for one more year ending June 30, 1952.

Rent: \$600 annually.

Sale of Land.

1. Joseph R. & Dominick T. Spina purchased a parcel of land containing 12,068 square feet for the sum of \$18,000 on the southerly side of C Street, South Boston.

FISCAL DIVISION REPORT.

FISCAL DIVISION REPORT.

The fiscal report of the Authority, as provided for in section 1 of chapter 91A of the General Laws, follows:

Summary of All Appropriations, June 30, 1952.

	Appropriation.	Allotment.	Expenditure.	Cash Balance.	Encumbrance.	Unencumbered Balance.	Unallotted Balance.	Unencumbered and Unallotted Balance.
3140-01	Administration	\$376,875 00	\$359,736 28	\$12,623 72	\$10,400 08	\$2,163 64	\$4,515 00	\$6,678 64
3150-01	Maintenance of property . .	416,530 00	366,416 74	50,113 26	41,975 45	8,137 81	-	8,137 81
2812-01	Shore protection (miscellaneous)	36,252 01	23,501 10	12,750 91	12,738 89	12 02	-	12 02
		\$829,657 01	\$749,654 12	\$75,437 89	\$65,174 42	\$10,313 47	\$4,515 00	\$14,828 47
8320-00	Boston Harbor facilities, loan .	\$4,069,454 35	\$253,645 95	\$3,008 40	\$1,738 67	\$1,271 73	\$3,812,800 00	\$3,814,071 73
8308-00	Boston Harbor terminal facilities loan (Mystic) . . .	3,104,062 34	2,064,219 39	579,842 95	449,776 71	130,066 24	460,000 00	590,066 24
8321-00	Castle Island facilities loan .	1,200,000 00	-	-	-	-	1,200,000 00	1,200,000 00
		\$8,373,516 69	\$2,317,865 34	\$582,851 35	\$451,513 38	\$131,337 97	\$5,472,800 00	\$5,604,137 97
<i>Federal Grant.</i>								
4126-00-00	Castle Island Terminal . . .	\$13,737 50	-	\$13,737 50	-	\$13,737 50	-	\$13,737 50
4127-00-00	Development of Northern Avenue	118,900 00	\$118,900 00	-	-	-	-	-
		\$132,637 50	\$118,900 00	\$13,737 50	-	\$13,737 50	-	\$13,737 50

Summary of All Appropriations, June 30, 1952. — Concluded.

	Appropriation.	Allotment.	Expenditure.	Cash Balance.	Encumbrance.	Unencumbered Balance.	Unallotted Balance.	Unencumbered and Unallotted Balance.
<i>Special Appropriations.</i>								
3145-01	Freight differential rates investigation. Expires June 30, 1952	\$17,936 42	\$11,202 90	\$6,733 52	\$6,733 52	-	-	-
2812-03	Dredging anchorage basins. Expires June 30, 1952	4,149 43	3,828 87	321 06	321 06	-	-	-
2812-04	Dredging Little Mystic River. Expires June 30, 1952	265 37	-	265 37	86 40	\$178 97	-	\$178 97
2812-05	Shore protection, Hull. Expires June 30, 1953	5,000 00	-	-	-	-	\$5,000 00	5,000 00
2812-06	Floating boom, Chelsea River. Expires June 30, 1953	25,000 00	-	-	-	-	25,000 00	25,000 00
2812-07	Dredging South Boston. Expires June 30, 1953	100,000 00	60,536 30	39,463 70	33,736 80	5,726 90	-	5,726 90
		\$152,351 22	\$75,567 57	\$46,783 65	\$40,877 78	\$5,905 87	\$30,000 00	\$35,905 87

Summary of Receipts, June 30, 1952.

	July.	August.	September.	October.	November.	December
License charges	\$1 50	\$939 56	\$88 70	\$450 00	\$717 90	\$300 00
Certified copying charges	1 00	1 00	—	2 00	5 00	5 00
Rentals	6,733 18	5,414 54	15,367 33	7,583 54	4,943 54	16,082 83
Commonwealth Pier No. 1	1,136 03	310 19	1,127 90	314 77	73 67	321 15
Commonwealth Pier No. 5	13,815 63	18,711 67	13,912 61	14,678 62	6,540 30	5,649 12
Castle Island	1,500 00	34,797 59	1,500 00	1,500 00	1,500 00	1,500 00
Commonwealth facilities, East Boston	7,062 50	14,125 00	—	7,062 50	7,062 50	7,062 50
Contributions	—	—	—	—	—	—
Rent for Hoosac Pier	11,358 22	22,716 44	—	11,358 22	11,358 22	11,358 22
Rents, other pay station re- ceipts	83 57	70 62	53 04	67 10	49 90	52 91
Mystic Pier, miscellaneous sales	—	—	—	—	—	—
Miscellaneous	329 03	541 09	623 42	160 93	1 40	—
Sales, other	—	—	—	—	—	—
Sale of equipment	—	—	—	—	—	—
Miscellaneous sales	—	—	—	—	—	—
Reimbursement for property damage	—	—	—	—	—	—
Sale of land	—	—	—	—	18,000 00	—
	\$42,020 66	\$97,627 70	\$32,673 00	\$43,177 68	\$50,252 43	\$42,331 73

Summary of Receipts, June 30, 1952.

January.	February.	March.	April.	May.	June.	Total.	Previous Year.
-	\$926 40	\$525 00	\$645 00	\$500 00	\$1,414 64	\$6,508 70	\$4,947 70
\$5 00	1 00	2 00	5 00	5 00	-	32 00	43 00
5,047 14	6,556 84	15,689 49	8,390 63	3,723 47	17,645 42	113,177 95	114,450 94
331 01	1,798 58	264 18	-	609 58	562 04	6,849 10	12,191 82
11,531 18	13,745 51	13,535 88	11,314 14	18,297 09	19,874 04	161,605 79	223,340 98
1,500 00	1,500 00	5,512 10	-	-	-	50,809 69	85,101 95
7,062 50	7,062 50	7,062 50	7,062 50	12,893 90	8,228 78	91,747 68	84,750 00
-	-	-	-	-	-	-	-
-	22,716 44	11,358 22	12,870 72	24,043 70	12,870 72	152,009 12	45,432 88
65 12	30 69	383 76	44 47	39 26	53 51	993 95	771 09
-	-	-	-	-	-	-	6,200 00
1 20	63 65	351 79Cr	214 38	120 00	-	1,703 31	1,149 09
-	-	8 25	1,156 74	1 20	1 20	1,167 39	-
-	-	-	-	-	-	-	100 00
-	-	-	-	-	-	-	395 00
-	-	-	-	-	-	-	295 00
-	-	-	-	-	-	18,000 00	28,000 00
\$25,543 15	\$54,401 61	\$53,989 59	\$41,703 58	\$60,233 20	\$60,650 35	\$604,604 68	\$607,169 45

Summary of Receipts, June 30, 1952.

	July.	August.	September.	October.	November.	December.
<i>Commonwealth Pier No. 5.</i>						
Dockage, lying at berth . . .	\$50 00	\$350 00	\$100 00	\$400 00	\$300 00	\$100 00
In dock	1,992 76	2,249 45	807 89	2,227 25	1,664 27	1,311 02
Out dock	1,174 89	1,383 15	1,798 78	1,041 65	401 76	235 28
Light	187 24	260 44	207 59	396 18	100 59	510 85
Locker	871 45	931 45	852 95	871 45	811 45	671 45
Miscellaneous	—	—	—	71 00	—	—
Passengers	102 00	397 00	87 50	456 50	—	50 50
Rent	465 44	419 24	434 24	629 84	469 64	461 00
Storage in transit	—	—	—	—	—	—
Water	166 80	211 50	235 15	160 09	131 33	128 93
In wharf	5,398 85	7,852 30	4,676 34	4,665 32	957 86	72 22
Out wharf	3,038 45	3,716 50	3,920 51	3,173 52	1,527 88	1,954 33
Storage	367 75	940 64	791 66	585 82	175 52	153 56
Use of pier by navy	—	—	—	—	—	—
Portable offices	—	—	—	—	—	—
Gangways, use of	—	—	—	—	—	—
In railroad	—	—	—	—	—	—
Out railroad	—	—	—	—	—	—
Elevator, use of	—	—	—	—	—	—
	\$13,815 63	\$18,711 67	\$13,912 61	\$14,678 62	\$6,540 30	\$5,649 12

Summary of Receipts, June 30, 1952.

January.	February.	March.	April.	May.	June.	Total.	Previous Year.
\$200 00	\$50 00	\$500 00	\$300 00	\$450 00	\$200 00	\$3,000 00	\$3,550 00
2,629 92	867 98	2,366 61	2,468 66	2,522 39	2,671 54	23,779 74	30,927 99
884 52	402 13	865 64	679 89	1,679 75	1,330 67	11,878 09	14,978 37
452 90	285 52	603 74	242 87	289 76	433 90	3,971 58	4,917 30
726 45	611 45	1,276 45	1,131 45	871 45	811 45	10,438 90	10,517 40
-	-	28 40	33 00	-	-	132 40	212 20
89 00	13 50	98 00	731 00	168 50	104 50	2,298 00	5,077 50
345 20	257 60	302 00	412 78	378 44	695 84	5,271 26	4,937 72
-	-	-	-	-	-	-	600 00
120 00	44 06	160 00	100 00	164 72	134 64	1,757 22	2,835 48
4,799 02	8,480 60	4,233 37	2,343 17	6,990 87	9,874 81	60,344 73	92,959 93
1,070 60	569 43	2,034 90	2,718 84	3,826 38	3,069 01	30,620 35	45,392 53
213 57	2,163 24	1,066 77	152 48	954 83	547 68	8,113 52	6,419 56
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	15 00
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
\$11,531 18	\$13,745 51	\$13,535 88	\$11,314 14	\$18,297 09	\$19,874 04	\$161,605 79	\$223,340 98

